



NMS Labs

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Toxicology Report

Report Issued 07/09/2018 21:01

To: 20141

New Mexico Office of Medical Investigators
Attn: Yvonne A. Villalobos
1101 Camino de Salud NE- Ste B
Albuquerque, NM 87105

Patient Name Turner Daniel
Patient ID 2018-03790
Chain 98058
Age 40 Y DOB [REDACTED]/1977
Gender Male
Workorder 18193790

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Positive Findings:

| <u>Compound</u> | <u>Result</u> | <u>Units</u> | <u>Matrix Source</u> |
|-----------------|---------------|--------------|----------------------|
| Amphetamine | 9.3 | ng/mL | 001 - Femoral Blood |
| Methamphetamine | 55 | ng/mL | 001 - Femoral Blood |

See Detailed Findings section for additional information

Testing Requested:

| <u>Analysis Code</u> | <u>Description</u> |
|----------------------|-------------------------------------|
| 8051B | Postmortem, Basic, Blood (Forensic) |

Specimens Received:

| <u>ID</u> | <u>Tube/Container</u> | <u>Volume/ Mass</u> | <u>Collection Date/Time</u> | <u>Matrix Source</u> | <u>Miscellaneous Information</u> |
|-----------|-----------------------|-------------------------|---------------------------------|----------------------|--------------------------------------|
| 001 | Gray Top Tube | 10.25 mL | 06/30/2018 | Femoral Blood | |
| 002 | Gray Top Tube | 9.25 mL | 06/30/2018 | Femoral Blood | |

All sample volumes/weights are approximations.

Specimens received on 07/03/2018.

Detailed Findings:

| Analysis and Comments | Result | Units | Rpt. Limit | Specimen Source | Analysis By |
|-----------------------|--------|-------|------------|---------------------|-------------|
| Amphetamine | 9.3 | ng/mL | 5.0 | 001 - Femoral Blood | LC-MS/MS |
| Methamphetamine | 55 | ng/mL | 5.0 | 001 - Femoral Blood | LC-MS/MS |

Other than the above findings, examination of the specimen(s) submitted did not reveal any positive findings of toxicological significance by procedures outlined in the accompanying Analysis Summary.

Reference Comments:

1. Amphetamine - Femoral Blood:

Amphetamine (Adderall, Dexedrine) is a Schedule II phenethylamine CNS-stimulant. It is used therapeutically in the treatment of narcolepsy and obesity and also in the treatment of hyperactivity in children. Amphetamine has a high potential for abuse. When used in therapy, initial doses should be small and increased gradually. In the treatment of narcolepsy, amphetamine is administered in daily divided doses of 5 to 60 mg. For obesity and children with attention deficits, usual dosage is 5 or 10 mg daily.

Following a single oral dose of 10 mg amphetamine sulfate, a reported peak blood concentration of 40 ng/mL was reached at 2 hr. Following a single 30 mg dose to adults, an average peak plasma level of 100 ng/mL was reported at 2.5 hr. A steady-state blood level of 2000 - 3000 ng/mL was reported in an addict who consumed approximately 1000 mg daily.

Overdose with amphetamine can produce restlessness, hyperthermia, convulsions, hallucinations, respiratory and/or cardiac failure. Reported blood concentrations in amphetamine-related fatalities ranged from 500 - 41000 ng/mL (mean, 9000 ng/mL). Amphetamine is also a metabolite of methamphetamine, benzphetamine and selegiline.

2. Methamphetamine - Femoral Blood:

d-Methamphetamine is a DEA schedule II stimulant drug capable of causing hallucinations, aggressive behavior and irrational reactions. Chemically, there are two forms (isomers) of methamphetamine: l- and d-methamphetamine. The l-isomer is used in non-prescription inhalers as a decongestant and has weak CNS-stimulatory activity. The d-isomer has been used therapeutically as an anorexigenic agent in the treatment of obesity and has potent CNS-, cardiac- and circulatory-stimulatory activity. Amphetamine and norephedrine (phenylpropanolamine) are metabolites of methamphetamine. d-Methamphetamine is an abused substance because of its stimulatory effects and is also addictive.

A peak blood concentration of methamphetamine of 20 ng/mL was reported at 2.5 hr after an oral dosage of 12.5 mg. Blood levels of 200 - 600 ng/mL have been reported in methamphetamine abusers who exhibited violent and irrational behavior. High doses of methamphetamine can also elicit restlessness, confusion, hallucinations, circulatory collapse and convulsions.

*In this case, the level of methamphetamine determined has not been differentiated according to its isomeric forms. Differentiation of the isomers of methamphetamine is available upon request.

Sample Comments:

001 Physician/Pathologist Name: Ian Paul, MD

Chain of custody documentation has been maintained for the analyses performed by NMS Labs.

Unless alternate arrangements are made by you, the remainder of the submitted specimens will be discarded six (6) weeks from the date of this report; and generated data will be discarded five (5) years from the date the analyses were performed.



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Chain 98058
Patient ID 2018-03790

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Workorder 18193790 was electronically
signed on 07/09/2018 20:36 by:

William H. Anderson, Ph.D., F-ABFT
Forensic Toxicologist

Analysis Summary and Reporting Limits:

All of the following tests were performed for this case. For each test, the compounds listed were included in the scope. The Reporting Limit listed for each compound represents the lowest concentration of the compound that will be reported as being positive. If the compound is listed as None Detected, it is not present above the Reporting Limit. Please refer to the Positive Findings section of the report for those compounds that were identified as being present.

Acode 50010B - Amphetamines Confirmation, Blood - Femoral Blood

-Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS) for:

| <u>Compound</u> | <u>Rpt. Limit</u> | <u>Compound</u> | <u>Rpt. Limit</u> |
|-----------------|-------------------|---------------------|-------------------|
| Amphetamine | 5.0 ng/mL | Methamphetamine | 5.0 ng/mL |
| Ephedrine | 5.0 ng/mL | Norpseudoephedrine | 5.0 ng/mL |
| MDA | 5.0 ng/mL | Phentermine | 5.0 ng/mL |
| MDEA | 5.0 ng/mL | Phenylpropanolamine | 5.0 ng/mL |
| MDMA | 5.0 ng/mL | Pseudoephedrine | 5.0 ng/mL |

Acode 8051B - Postmortem, Basic, Blood (Forensic) - Femoral Blood

-Analysis by Enzyme-Linked Immunosorbent Assay (ELISA) for:

| <u>Compound</u> | <u>Rpt. Limit</u> | <u>Compound</u> | <u>Rpt. Limit</u> |
|----------------------------|-------------------|----------------------------|-------------------|
| Amphetamines | 20 ng/mL | Fentanyl / Acetyl Fentanyl | 0.50 ng/mL |
| Barbiturates | 0.040 mcg/mL | Methadone / Metabolite | 25 ng/mL |
| Benzodiazepines | 100 ng/mL | Methamphetamine / MDMA | 20 ng/mL |
| Buprenorphine / Metabolite | 0.50 ng/mL | Opiates | 20 ng/mL |
| Cannabinoids | 10 ng/mL | Oxycodone / Oxymorphone | 10 ng/mL |
| Cocaine / Metabolites | 20 ng/mL | Phencyclidine | 10 ng/mL |

-Analysis by Headspace Gas Chromatography (GC) for:

| <u>Compound</u> | <u>Rpt. Limit</u> | <u>Compound</u> | <u>Rpt. Limit</u> |
|-----------------|-------------------|-----------------|-------------------|
| Acetone | 5.0 mg/dL | Isopropanol | 5.0 mg/dL |
| Ethanol | 10 mg/dL | Methanol | 5.0 mg/dL |